Tetra Tech EM Inc.
200 E. Randolph Drive, Suite 4700 ◆ Chicago, IL 60601 ◆ (312) 856-8700 ◆ FAX (312) 938-0118

July 11, 2003

Mr. Nabil Fayoumi
Remedial Project Manager
Remedial Branch
U.S. Environmental Protection Agency Region 5
77 West Jackson Boulevard
Chicago, IL 60604

Subject: **Letter Report**
Borrow Pit Lake Mercury Sampling Event
Sauget Area 1, Dead Creek Segment F
Cahokia, St. Clair County, Illinois
Technical Direction Document No. S05-0302-016
Tetra Tech Contract No. 68-W-00-129

Dear Mr. Fayoumi:

The Tetra Tech EM Inc. (Tetra Tech) Superfund Technical Assessment and Response Team (START) is submitting the enclosed letter report for oversight of mercury sampling at the Sauget Area 1, Dead Creek Segment F, Borrow Pit Lake site in Cahokia, Illinois. If you have questions or comments regarding the report or require additional copies, please contact Chad Gibson at (312) 946- 6475, Thomas Kouris at (312) 946-6431, or myself at (314) 892-6322, ext. 25.

Sincerely,

for Thomas G. Binz
Tetra Tech START Deputy Project Manager

Enclosure

cc: Lorraine Kosik, U.S. EPA START Project Officer
Thomas Kouris, Tetra Tech START Program Manager
Chad Gibson, Tetra Tech START Project Manager

EPA UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

"...TO PROTECT HUMAN HEALTH AND SAFEGUARD THE NATURAL ENVIRONMENT..."

BORROW PIT LAKE MERCURY SAMPLING EVENT SAUGET AREA 1 DEAD CREEK SEGMENT F

CAHOKIA, ST. CLAIR COUNTY, ILLINOIS

SITE INVESTIGATION REPORT

TDD No.: S05-0302-016
Contract Number: 68-W-00-129

Prepared for
U.S. Environmental Protection Agency
Region 5 Remedial Branch
77 West Jackson Boulevard
Chicago, IL 60604

Prepared by:

Tetra Tech EM Inc.

LETTER REPORT
BORROW PIT LAKE MERCURY SAMPLING EVENT
DEAD CREEK SEGMENT F
CAHOKIA, ST. CLAIR COUNTY, ILLINOIS

Prepared for:

U.S. ENVIRONMENTAL PROTECTION AGENCY
Region 5 Remedial Branch
77 West Jackson Boulevard
Chicago, IL 60604

Date Prepared:	July 11, 2003
Contract No.:	68-W-00-129
TDD No.:	S05-0302-016
Prepared by:	Tetra Tech EM Inc.
Tetra Tech START Project Manager.:	Thomas G. Binz
Telephone No.:	(314) 892-6322
U.S. EPA Remedial Project Manager.:	Nabil Fayoumi
Telephone No.:	(312) 886-6840

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FIGURES

TABLES

1.0 INTRODUCTION

The Tetra Tech EM Inc. Superfund Technical Assessment and Response Team (START) prepared this letter report in accordance with the requirements of Technical Direction Document (TDD) No. S05-0302-016 issued by the U.S. Environmental Protection Agency (U.S. EPA). The scope of this TDD was to conduct mercury sampling oversight activities at the Borrow Pit Lake, Sauget Area 1, Dead Creek Segment F (Borrow Pit Lake) site in Cahokia, St. Clair County, Illinois. START was tasked to oversee sampling activities conducted by private responsible parties (PRP) at the site and document on-site activities through written logbook notes. A total of 60 sampling locations were surveyed and sampled by representatives from Blasland, Bouck & Lee Sciences (BBL Sciences). This report discusses the site background and daily site sampling activities, and presents a summary of oversight activities. The appendix to this report provides copies of sample chain-of-custody records for all sample deliveries to out-of-state laboratories. Analytical results are not a component of this letter report because field sampling activities were recently completed and results are not available at this time.

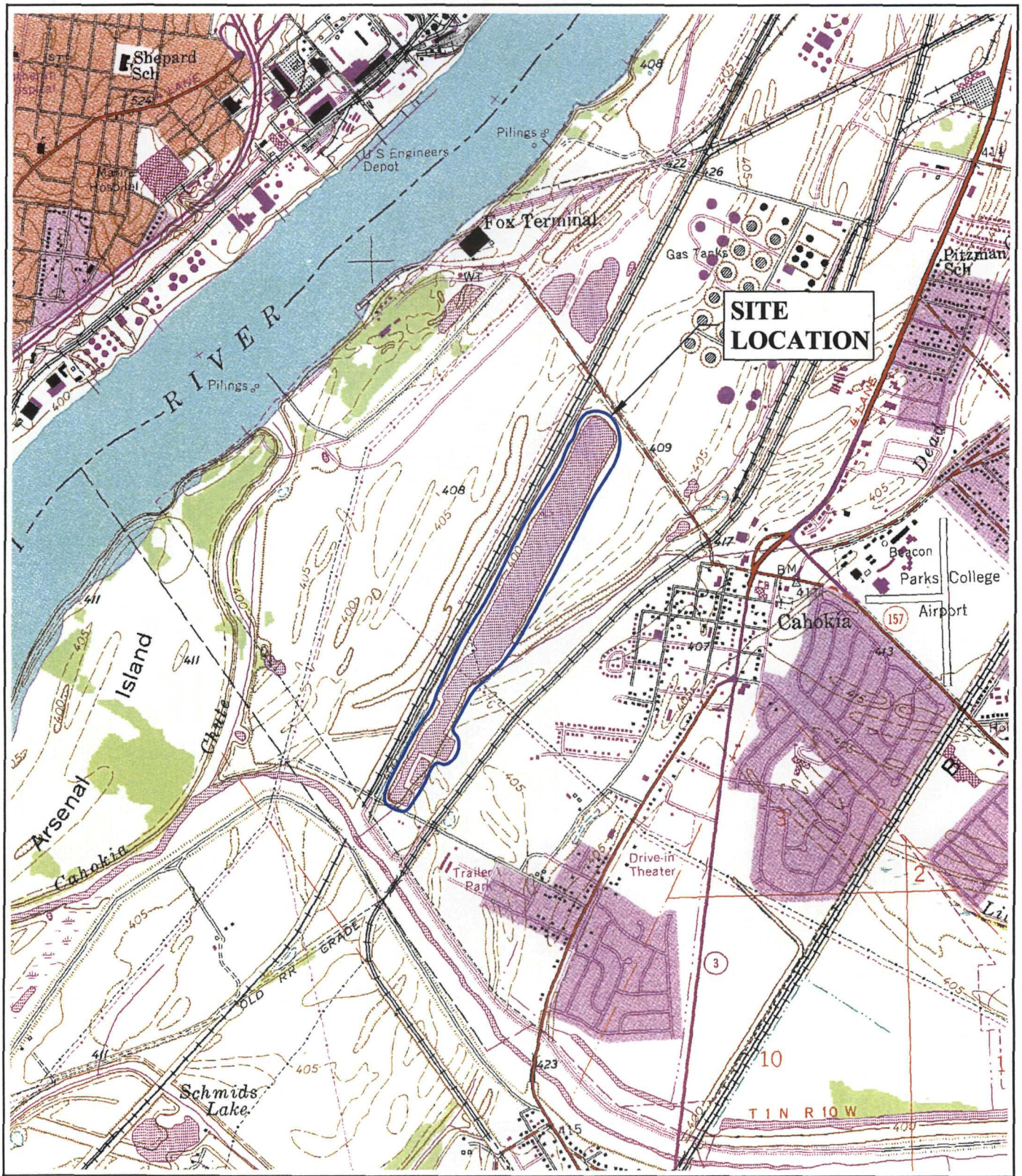
2.0 SITE BACKGROUND

Borrow Pit Lake is located next to Segment F of Dead Creek in Sauget Area 1, Cahokia, St. Clair County, Illinois (see Figure 1). Latitude and longitude coordinates, respectively, for Borrow Pit Lake are 34° 34' 11" North and 90° 12' 06" West.

Ecology and Environment (E&E) conducted a preliminary ecological risk assessment for Sauget Area 1 within the boundaries of Dead Creek Segment F (under TDD No. S05-9703-012). U.S. EPA tasked E&E to determine whether Sauget Area 1 poses an "immediate or long-term ecological risk or if a potential ecological risk exists and perform further evaluation if necessary." On April 18, 1997, E & E and U.S. EPA collected eight sediment samples from Segment F and analyzed them for metals, polynuclear aromatic hydrocarbons (PAH), polychlorinated biphenyls (PCB), total organic carbon (TOC), pesticides, and dioxins. Data collected during the E&E sampling event led to the conclusions that (1) Borrow Pit Lake sediments may have had "adverse ecological impact" on Segment F based on the presence of mercury, and (2) the sediments required further characterization and assessment to determine actual or potential risks to ecological or human health receptors.

In accordance with the requirements set forth in Administrative Order, Docket No. V-W-99-C-554, U.S. EPA Region 5 approved a time-critical removal action of impacted sediments from the 3.5-mile-long Dead Creek in Cahokia and Sauget, Illinois.

In the fall of 2001, approximately 46,000 cubic yards of impacted sediments were removed from Dead Creek Segments B, C, D, E, and F; Site M, and a lift station sump collection point where Dead Creek discharges into the Prairie du Pont drainage channel. Impacted creek sediments were placed into a Toxic Substances Control Act (TSCA) and Resource Conservation and Recovery Act (RCRA) landfill all compliant with requirements. The cell was constructed along the west side of Dead Creek, Segment B, between Queeney Avenue and Judith Lane. Additionally, the PRPs for Sauget Area 1 were required to submit to U.S. EPA a mitigation plan containing (1) an assessment of adverse impacts to the Dead Creek drainageway and surrounding wetlands and habitat; (2) a plan to provide for the replacement of such wetlands and habitat, if necessary; and (3) an investigation of potential mercury contamination in the Borrow Pit Lake area next to Creek Segment F.



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SCALE IN FEET

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SOURCE: MODIFIED U.S. GEOLOGICAL SURVEY, 7.5-MINUTE SERIES TOPOGRAPHIC MAP OF CAHOKIA, ILLINOIS-MISSOURI, QUADRANGLE, 1993

BORROW PIT LAKE
CAHOKIA, ST. CLAIR COUNTY, ILLINOIS
TDD NO. S05-0302-016

FIGURE 1
SITE LOCATION MAP

Prepared for: EPA

By: Tetra Tech EM Inc.

On October 4, 2002, a final mitigation plan was submitted to U.S. EPA Region 5. U.S. EPA Region 5 conditionally approved the mitigation plan, including the Borrow Pit Lake investigation and work plans. Figure 2 shows all proposed sampling locations at the Borrow Pit Lake site as presented in the Borrow Pit Lake sampling plan.

This letter report addresses mercury sampling and investigation activities at the Borrow Pit Lake site on May 6, 7, 8, 9, 12, and 13, 2003.

FIGURE 2 (Labeled as 4-1) SEDIMENT SAMPLING LOCATION

Source: Solutia, Inc. 2002. "Dead Creek Sediment Removal Action Mitigation Plan." Figure 4-1, "Borrow Pit Lake Investigation Plan Sediment Sampling Locations." Prepared by URS Corporation for Solutia, Inc. October 4.

3.0 DAILY SITE SAMPLING ACTIVITIES

This section chronologically discusses sediment sampling activities at the Borrow Pit Lake site. On April 29, 2003, START deputy project manager Thomas Binz contacted Solutia, Inc. (Solutia), representative Mr. Richard Williams to provide names of START representatives who required formal access approval to the Borrow Pit Lake site. At that time, mobilization activities were planned for May 5, 2003, and sampling activities were planned to begin on May 6, 2003. Solutia's sampling contractor was BBL Sciences.

Because of travel considerations for BBL Sciences personnel and to establish the required surveyed 200- by 200-foot sampling hard grid (including the placement of wooden stakes at sampling points), no sediment samples were collected until May 6. The observed sampling techniques and sampling activities for each day are discussed in the following sections.

3.1 OBSERVED SAMPLING TECHNIQUES

Samples were typically collected by driving a 3-inch-diameter, polycarbonate (Lexan®) tube into surface sediment next to the surveyed sampling point identified by a wooden survey stake. Surface sediment samples were collected in accordance with the U.S. EPA-approved quality assurance project plan (QAPP) for the site as summarized below.

- The Lexan® sampler was advanced into the sediment matrix using a T-handle driver to the desired sampling depth or until sampler refusal.
- Each sample tube was capped and the cap affixed with duct tape to provide an adequate seal.
- The sampler was simultaneously twisted and pulled upwards to extract the sediment column.
- The bottom of the core sampler was capped and sealed with duct tape.
- The date, time, location, depth of penetration, height of the water column (if necessary), and sample depth were recorded.
- All sampler tubes were photographed.

- If necessary, the water column was drained from the sampling tube by drilling small holes above the sediment core.
- Samples were placed on ice prior to sample preparation.

At all odd numbered sampling points, the next deepest sampling interval was also sampled. All samples were field screened for mercury using a Jerome MVA Model 411 screening instrument. Table 1 summarizes positive field screening results. After sample tubes were collected, sample preparation activities were conducted in accordance with QAPP guidance in controlled conditions at the pole barn building on Pitzman Avenue in Sauget, Illinois. Sample tubes were cut with a saw at the appropriate sampling interval, homogenized in stainless-steel bowls, containerized, labeled, double-bagged in Zip-lock bags, and preserved to 4° C in coolers prior to overnight delivery to the designated analytical laboratories.

Battelle Marine Sciences Laboratory in Sequim, Washington, analyzed the samples for total mercury in accordance with U.S. EPA SW-846 Method 7471. Brooks Rand LCC in Seattle, Washington, analyzed the samples for methyl mercury using U.S. EPA SW-846 Method 1630.

On the sample chain-of-custody record dated May 6, 2003, the sample analytical methods for each laboratory were reversed. BBL Sciences field manager Mr. Ronald Kuhn contacted the laboratories and instructed them to use the amended sample analytical method noted on the corrected-chain-of custody record (see chain-of-custody for May 6 and the corrected May 6 record in the appendix).

TABLE 1

SUMMARY OF JEROME MVA MODEL 411 MERCURY FIELD SCREENING RESULTS

Sample Identification No.	Sampling Interval (feet bgs)	Mercury Concentration (mg/mg^3)
BPL-HGSED-27	0.0 to 0.5	0.004
BPL-HGSED-17	0.0 to 0.5	0.019
BPL-HGSED-49	0.0 to 0.5	0.005

Notes:

bgs = Below ground surface
mg/m^3 = Milligram per cubic meter

3.2 TUESDAY, MAY 6, 2003

START arrived at the Borrow Pit Lake site at 9:10 a.m. and met with the following representatives:

- Mr. Ronald Kuhn, Field Manager
- Mr. Shawn Skelly, Technician Level 3
- Mr. Thomas O'Rourke, Surveyor
- Mr. Steve Truchon, Project Manager

BBL Sciences briefed START on surveying and sampling activities completed to date. The BBL Sciences survey crew was laying out the 200- by 200-foot grid and using wooden stakes to mark sampling points. Other BBL Sciences members were collecting sediment samples using the manual sampler. Table 2 summarizes the sediment samples collected on this day.

Borrow Pit Lake contained 0.5 to 2.0 feet of standing water in the area to be sampled. Rising water from the Mississippi River invaded the Dead Creek channel where low-flow discharge typically occurs into the Prairie Du Pont Drainage Channel (Cahokia Canal). Recent seasonal rainfall events and rising river elevations often create a rapid change in Dead Creek elevations, and because Borrow Pit Lake is a section of Dead Creek, hip waders were required during sediment sampling activities. As a contingency plan, Ron Kuhn indicated that samples would be collected from a small boat if hip waders did not provide sufficient protection from rising water.

BBL Sciences completed sample collection activities by 12:27 p.m. At 12:57 p.m., BBL Sciences representatives transported all samples collected to the pole barn building for containerization and preparation for delivery by Federal Express to the analytical laboratories.

TABLE 2

SEDIMENT SAMPLES COLLECTED ON MAY 6, 2003

Sample Identification No.	Sample Interval (feet bgs)	Analysis for Total Mercury	Analysis for Methyl Mercury
BPL-HGSED-02	0.0 to 0.5	Yes	Yes
BPL-HGSED-03	0.0 to 0.5	Yes	Yes
BPL-HGSED-03	0.5 to 1.6	Yes	Yes
BPL-HGSED-04	0.0 to 0.5	Yes	Yes
BPL-HGSED-06	0.0 to 0.5	Yes	Yes
BPL-HGSED-08	0.0 to 0.5	Yes	Yes
BPL-HGSED-10	0.0 to 0.5	Yes	Yes
BPL-HGSED-11	0.0 to 0.5	Yes	Yes
BPL-HGSED-11	0.5 to 1.15	Yes	Yes
BPL-HGSED-12	0.0 to 0.5	Yes	Yes
BPL-HGSED-13	0.0 to 0.5	Yes	Yes
BPL-HGSED-13	0.5 to 0.8	Yes	Yes
BPL-HGSED-15	0.0 to 0.5	Yes	Yes
BPL-HGSED-15	0.5 to 1.2	Yes	Yes

Note:

bgs = Below ground surface

3.3 WEDNESDAY, MAY 7, 2003

START arrived on-site at 7:39 a.m. and observed sampling activities at 15 sampling points along the banks of Borrow Pit Lake. Unfortunately, rising water levels required BBL Sciences to use hip waders to collect samples from areas submerged by 2.0 to 2.5 feet of water. Despite this minor inconvenience, sample collection activities continued according to plan; however, START could only observe sampling activities from along the water's edge. Table 3 summarizes the sediment samples collected on this day.

Sample BPL-HGSED-27 collected on this day from 0.0 to 0.5 foot bgs yielded a positive Jerome MVA Model 411 mercury reading of 0.004 milligram per cubic meter (mg/m^3) (see Table 1).

BBL Sciences completed sample collection activities by 11:20 a.m. At 11:33 a.m., BBL Sciences representatives transported all samples collected this day to the pole barn building for containerization and preparation for delivery by Federal Express to the analytical laboratories. Table 3 summarizes the sediment samples collected on this day.

TABLE 3

SEDIMENT SAMPLES COLLECTED ON MAY 7, 2003

Sample Identification No.	Sample Interval (feet bgs)	Analysis for Total Mercury	Analysis for Methyl Mercury
BPL-HGSED-14	0.0 to 0.5	Yes	Yes
BPL-HGSED-16	0.0 to 0.5	Yes	Yes
BPL-HGSED-18	0.0 to 0.5	Yes	Yes
BPL-HGSED-20	0.0 to 0.5	Yes	Yes
BPL-HGSED-22	0.0 to 0.5	Yes	Yes
BPL-HGSED-23	0.0 to 0.5	Yes	Yes
BPL-HGSED-23	0.5 to 1.1	Yes	Yes
BPL-HGSED-24	0.0 to 0.5	Yes	Yes
BPL-HGSED-25	0.0 to 0.5	Yes	Yes
BPL-HGSED-25	0.5 to 1.0	Yes	Yes
BPL-HGSED-26	0.0 to 0.5	Yes	Yes
BPL-HGSED-27	0.5 to 0.8	Yes	Yes
BPL-HGSED-27	0.5 to 1.15	Yes	Yes
BPL-HGSED-28	0.0 to 0.5	Yes	Yes
BPL-HGSED-29	0.0 to 0.5	Yes	Yes
BPL-HGSED-29	0.5 to 0.8	Yes	Yes
BPL-HGSED-30	0.0 to 0.5	Yes	Yes
BPL-HGSED-31	0.0 to 0.5	Yes	Yes
BPL-HGSED-31	0.5 to 1.2	Yes	Yes
BPL-HGSED-32	0.0 to 0.5	Yes	Yes

Note:

bgs = Below ground surface

3.4 THURSDAY, MAY 8, 2003

START arrived at the site at 8:07 a.m. and observed sampling activities at 15 sampling points. BBL Sciences personnel were collecting samples at this time. START utilized hip waders to observe sample collection from an area under 1.5 to 2.0 feet of water. Sample collection activities were completed at 10:33 a.m. At 11:01 a.m., the sampling crew arrived at the pole barn to begin sample preparation activities. Table 4 summarizes the sediment samples collected on this day.

TABLE 4

SEDIMENT SAMPLES COLLECTED ON MAY 8, 2003

Sample Identification No.	Sample Interval (feet bgs)	Analysis for Total Mercury	Analysis for Methyl Mercury
BPL-HGSED-33	0.0 to 0.5	Yes	Yes
BPL-HGSED-33	0.5 to 1.25	Yes	Yes
BPL-HGSED-34	0.0 to 0.5	Yes	Yes
BPL-HGSED-35	0.0 to 0.5	Yes	Yes
BPL-HGSED-35	0.5 to 1.5	Yes	Yes
BPL-HGSED-36	0.0 to 0.5	Yes	Yes
BPL-HGSED-37	0.0 to 0.5	Yes	Yes
BPL-HGSED-37	0.5 to 1.2	Yes	Yes
BPL-HGSED-38	0.0 to 0.5	Yes	Yes
BPL-HGSED-39	0.0 to 0.5	Yes	Yes
BPL-HGSED-39	0.5 to 1.5	Yes	Yes
BPL-HGSED-40	0.0 to 0.5	Yes	Yes
BPL-HGSED-41	0.0 to 0.5	Yes	Yes
BPL-HGSED-41	0.5 to 1.4	Yes	Yes
BPL-HGSED-42	0.0 to 0.5	Yes	Yes
BPL-HGSED-43	0.0 to 0.5	Yes	Yes
BPL-HGSED-43	0.5 to 1.5	Yes	Yes
BPL-HGSED-44	0.0 to 0.5	Yes	Yes
BPL-HGSED-45	0.0 to 0.5	Yes	Yes
BPL-HGSED-45	0.5 to 1.4	Yes	Yes
BPL-HGSED-46	0.0 to 0.5	Yes	Yes
BPL-HGSED-53	0.0 to 0.5	Yes	Yes
BPL-HGSED-53	0.5 to 1.5	Yes	Yes

Note:

bgs = Below ground surface

3.5 FRIDAY, MAY 9, 2003

START arrived at 6:51 a.m. at the southern end of the Borrow Pit Lake site. Because of travel considerations for BBL Sciences representatives, samples were collected from only six sampling points on this day. Sample collection activities were completed at 9:30 a.m. At 9:47 a.m., the BBL Sciences sampling crew arrived at the pole barn to begin sample preparation activities. Table 5 summarizes the sediment samples collected on this day.

TABLE 5

SEDIMENT SAMPLES COLLECTED ON MAY 9, 2003

Sample Identification No.	Sample Interval (feet bgs)	Analysis for Total Mercury	Analysis for Methyl Mercury
BPL-HGSED-54	0.0 to 0.5	Yes	Yes
BPL-HGSED-55	0.0 to 0.5	Yes	Yes
BPL-HGSED-55	0.5 to 1.5	Yes	Yes
BPL-HGSED-56	0.0 to 0.5	Yes	Yes
BPL-HGSED-57	0.0 to 0.5	Yes	Yes
BPL-HGSED-57	0.5 to 1.5	Yes	Yes
BPL-HGSED-58	0.0 to 0.5	Yes	Yes
BPL-HGSED-59	0.0 to 0.5	Yes	Yes
BPL-HGSED-59	0.5 to 1.5	Yes	Yes

Note:

bgs = Below ground surface

3.6 MONDAY, MAY 12, 2003

Because of travel considerations for BBL Sciences personnel, START arrived at the site at 9:36 a.m. Over the weekend, water levels had dropped enough to allow easier access to sampling points. Four points were sampled on this day. Sample collection activities were completed by 1:00 p.m. At 1:24 p.m., the BBL Sciences sampling crew arrived at the pole barn to begin sample preparation activities. Table 6 summarizes the sediment samples collected on this day.

TABLE 6

SEDIMENT SAMPLES COLLECTED ON MAY 12, 2003

Sample Identification No.	Sample Interval (feet bgs)	Analysis for Total Mercury	Analysis for Methyl Mercury
BPL-HGSED-01	0.0 to 0.5	Yes	Yes
BPL-HGSED-01	0.5 to 0.9	Yes	Yes
BPL-HGSED-05	0.0 to 0.5	Yes	Yes
BPL-HGSED-05	0.5 to 1.5	Yes	Yes
BPL-HGSED-07	0.0 to 0.5	Yes	Yes
BPL-HGSED-07	0.5 to 1.4	Yes	Yes
BPL-HGSED-09	0.0 to 0.5	Yes	Yes
BPL-HGSED-09	0.5 to 1.5	Yes	Yes

Note:

bgs = Below ground surface

3.7 TUESDAY, MAY 13, 2003

START arrived on site at 7:33 a.m. and observed sampling activities at 11 sample points. BBL Sciences personnel collected a total of 11 samples by 10:00 a.m. Receding water allowed easy access to all sampling points. Table 7 summarizes the sediment samples collected on this day. BBL Sciences sampling crew arrived at the pole barn to begin sample preparation activities at 10:17 a.m.

The sample from BPL-HGSED-60 was collected using a hand auger because the presence of rock and gravel impeded advancement of the Lexan® sampler. The rock and gravel appeared to be non-native fill materials. How and when the non-native fill materials were placed is unknown. This was the only location where the sample was not collected by using the Lexan® sampler.

The sample from BPL-HGSED-17 from 0.0 to 0.5 foot bgs yielded a positive Jerome MVA Model 411 mercury reading of 0.019 mg/m^3, and the sample from BPL-HGSED-49 from the 0.0 to 0.5 foot bgs yielded a positive reading of 0.005 mg/m^3 (see Table 1).

Sampling activities were determined to be complete on this day, and START was informed that after sample preparations, BBL Sciences would demobilize from the site. START departed from the site without observing demobilization activities.

TABLE 7

SEDIMENT SAMPLES COLLECTED ON MAY 13, 2003

Sample Identification No.	Sample Interval (feet bgs)	Analysis for Total Mercury	Analysis for Methyl Mercury
BPL-HGSED-17	0.0 to 0.5	Yes	Yes
BPL-HGSED-17	0.5 to 1.2	Yes	Yes
BPL-HGSED-19	0.0 to 0.5	Yes	Yes
BPL-HGSED-19	0.5 to 1.5	Yes	Yes
BPL-HGSED-21	0.0 to 0.5	Yes	Yes
BPL-HGSED-21	0.5 to 1.3	Yes	Yes
BPL-HGSED-47	0.0 to 0.5	Yes	Yes
BPL-HGSED-47	0.5 to 1.45	Yes	Yes
BPL-HGSED-48	0.0 to 0.5	Yes	Yes
BPL-HGSED-49	0.0 to 0.5	Yes	Yes
BPL-HGSED-49	0.5 to 1.35	Yes	Yes
BPL-HGSED-50	0.0 to 0.5	Yes	Yes
BPL-HGSED-51	0.0 to 0.5	Yes	Yes
BPL-HGSED-51	0.5 to 1.2	Yes	Yes
BPL-HGSED-52	0.0 to 0.5	Yes	Yes
BPL-HGSED-60	0.0 to 0.5	Yes	Yes

Note:

bgs = Below ground surface

4.0 SUMMARY

U.S. EPA Region 5 approved a time-critical removal action of impacted sediments from the 3.5-mile-long Dead Creek in Cahokia and Sauget, Illinois. Late in 2001, approximately 46,000 cubic yards of impacted sediments were removed from Dead Creek Segments B, C, D, E, and F; Site M; and a lift station sump collection point where Dead Creek discharges in the Prairie du Pont drainage channel. The site PRPs were required to submit to U.S. EPA a mitigation plan that included an investigation of potential mercury contamination in the Borrow Pit Lake site located next to Dead Creek Segment F. On October 21, 2002, U.S. EPA Region 5 conditionally approved the mitigation plan, which contained a work plan for sediment investigation of potential mercury impacts at the Borrow Pit Lake site.

Starting on May 6, 2003, a total of 60 sampling points were surveyed and marked with wooden survey stakes as part of a 200- by 200-foot sampling grid at the site. Samples were collected from May 6 through 13, 2003. During initial sample collection activities, rising water levels required use of hip waders. However, water levels dropped during the final days of sample collection activities.

Samples were collected by driving a 3-inch-diameter Lexan® tube into surface sediment next to the surveyed sampling point. Field samples were then collected, screened for mercury using a Jerome MVA Model 411 screening instrument, temporarily placed on ice, and delivered to the pole barn building were they were homogenized, containerized, labeled and preserved at 4°C for overnight delivery to the analytical testing laboratories. Battelle Marine Sciences Laboratory in Sequim, Washington, was contracted to analyze the samples for total mercury in accordance with U.S. EPA SW-846 Method 7471. Brooks Rand LCC in Seattle, Washington, analyzed the samples for methyl mercury using U.S. EPA Method 1630.

During sampling, the following three samples yielded positive Jerome MVA Model 411 mercury readings:

- BPL-HGSED-27 from 0.0 to 0.5 foot bgs; mercury reading of 0.004 mg/mg^3
- BPL-HGSED-17 from 0.0 to 0.5 foot bgs; mercury reading of 0.019 mg/mg^3
- BPL-HGSED-49 from 0.0 to 0.5 foot bgs; mercury reading of 0.005 mg/mg^3

At this time, sample results are pending. No further action is expected under TDD No. S05-0302-016.

APPENDIX

SAMPLE CHAIN-OF-CUSTODY RECORDS

(25 Sheets)

SAMPLE CUSTODY RECORD

(SOP# MSL-A-001 & MSL-A-002)

Date: 5/6/03

Battelle
. . . Putting Technology To Work
Pacific Northwest Division
Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

Project Name: SOLUTIA - BORROW PIT LAKE SEDIMENT SAMPLING
Project Manager: DAVID LUDWIG
Phone Number: (410) 295-1205
Shipment Method: FEDEX #: 8371 2545 3114
Preservation: 4°C

SPOKE W/ BRENDA LASORSA 5/7/03 @ 1700 CHANGED ANALYSIS TO TOTAL MERCURY SW846-7471

Line	Field Sample ID	Collection Date/Time	Matrix	No. of Containers	METHYLMERCURY USEPA 1630	MS/MSD				Laboratory ID	Observations/Comments
1	BPL-HGSED-02(0-0.5)	5/6/03 1005	SED	1	X						
2	BPL-HGSED-03(0-0.5)	5/6/03 1025	SED	1	X						
3	BPL-HGSED-03(0.5-1.6)	5/6/03 1025	SED	1	X						
4	BPL-HGSED-04(0-0.5)	5/6/03 1040	SED	2	X	X					
5	BPL-HGSED-61(0-0.5)	5/6/03 1230	SED	1	X						BLIND DUPLICATE OF BPL-HGSED-04(0-0.5)
6	BPL-HGSED-06(0-0.5)	5/6/03 1050	SED	1	X						
7	BPL-HGSED-08(0-0.5)	5/6/03 1110	SED	1	X						
8	BPL-HGSED-10(0-0.5)	5/6/03 1135	SED	1	X						
9	BPL-HGSED-11(0-0.5)	5/6/03 1120	SED	1	X						
10	BPL-HGSED-11(0.5-1.15)	5/6/03 1120	SED	1	X						
11	BPL-HGSED-12(0-0.5)	5/6/03 1145	SED	2	X	X					
12	BPL-HGSED-13(0-0.5)	5/6/03 1155	SED	1	X						
13	BPL-HGSED-13(0.5-0.8)	5/6/03 1155	SED	1	X						
14	BPL-HGSED-15(0-0.5)	5/6/03 1205	SED	1	X						
15	BPL-HGSED-15(0.5-1.2)	5/6/03 1205	SED	1	X						
16	BPL-HGSED-71	5/6/03 1600	H2O	1	X						(RINSE BLANK) [illegible]

Relinquished By:	Company:	Received By:	Company:
[signature] Ronald D Kim	BBL		
Signature/Printed Name	Date/Time: 5/6/03 1700	Signature/Printed Name	Date/Time

Relinquished By:	Company:	Received By:	Company:
Signature/Printed Name	Date/Time	Signature/Printed Name	Date/Time

Distribution: White - Laboratory Project Files Yellow - [illegible]

SAMPLE CUSTODY RECORD

(SOP# MSL-A-001 & MSL-A-002)

Date: 5/6/03

Battelle
. . . Putting Technology To Work
Pacific Northwest Division
Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

Project Name: Solutia - Borrow Pit Lake Sediment Sampling
Project Manager: David Ludwig
Phone Number: (410) 295-1205
Shipment Method: FedEx #: 8371 2545 3114
Preservation: 4°C

Line	Field Sample ID	Collection Date/Time	Matrix	No. of Containers	Test Parameters: Methylmercury USEPA 1630	MS/MSD				Laboratory ID	Observations/Comments
1	BPL-HGSED-02(0-0.5')	5/6/03 1005	SED	1	X						
2	BPL-HGSED-03(0-0.5')	5/6/03 1025	SED	1	X						
3	BPL-HGSED-03(0.5-1.6')	5/6/03 1025	SED	1	X						
4	BPL-HGSED-04(0-0.5')	5/6/03 1040	SED	2	X	X					
5	BPL-HGSED-61(0-0.5')	5/6/03 1230	SED	1	X						Blind Duplicate of BPL-HGSED-04(0-0.5')
6	BPL-HGSED-06(0-0.5')	5/6/03 1050	SED	1	X						
7	BPL-HGSED-08(0-0.5')	5/6/03 1110	SED	1	X						
8	BPL-HGSED-10(0-0.5')	5/6/03 1135	SED	1	X						
9	BPL-HGSED-11(0-0.5')	5/6/03 1120	SED	1	X						
10	BPL-HGSED-11(0.5-1.15')	5/6/03 1120	SED	1	X						
11	BPL-HGSED-12(0-0.5')	5/6/03 1145	SED	2	X	X					
12	BPL-HGSED-13(0-0.5')	5/6/03 1155	SED	1	X						
13	BPL-HGSED-13(0.5-0.8')	5/6/03 1155	SED	1	X						
14	BPL-HGSED-15(0-0.5')	5/6/03 1205	SED	1	X						
15	BPL-HGSED-15(0.5-1.2')	5/6/03 1205	SED	1	X						
16	BPL-HGSED-71	5/6/03 1600	H2O	1	X						(Rinse Blank) *Needs to be preserved by

Relinquished By: [signature] Company: BBL
Ronald D Kim Signature/Printed Name — 5/6/03 1710 Date/Time

Received By: Company:
Signature/Printed Name — Date/Time

Relinquished By: Company:
Signature/Printed Name — Date/Time

Received By: Company:
Signature/Printed Name — Date/Time

Rev. 020102COC Distribution: *White - Laboratory, Project Files Yellow - Laboratory, Client Pink - Sampler*

Brooks Rand LLC Chain Of Custody Record SOLUTIA - BORROW PIT CAKE SEDIMENT SAMPLING

Client: BBL	Email address:	Ship to: **Brooks Rand LLC**
Contact: DAVID LUDWIG	PO #: 102.94.001	3958 6th Avenue NW
Address: BLASLAND, BOUCK; LEE	Sampler's signatures:	Seattle, WA 98107
		Phone: 206-632-6206
	Fax COC for receipt confirmation? (Y / (N))	Fax: 206-632-6017
Phone #: (410) 295-1705	Client project ID: 102.94.001	Email: brl@brooksrand.com
Fax #:	BRL project ID: BRL006	www.brooksrand.com

For BRL use only	Cooler temp (°C):	Custody seals present? (Y / N)	Custody seals intact? (Y / N)	Date:	Initials:

	Sample ID	Collection: Date	Collection: Time	Miscellaneous: Sampler (initials)	Miscellaneous: Matrix type	Miscellaneous: # of containers	Miscellaneous: Sample field filtered, Y/N	Field Preservation: Unpreserved or ice only	Field Preservation: HNO_3	Field Preservation: HCl	Field Preservation: BrCl	Field Preservation: Other (specify)	Analyses required: TOTAL MERCURY SW846 - 7471	Analyses required: MS/MSD	Analyses required	Analyses required	Analyses required	Analyses required	Analyses required	Comments
1	BRL-HGSED-02 (0-0.5')	5/6/03	1105	RDK	SED	1		X					X							
2	BRL-HGSED-03 (0-0.5')	5/6/03	1025	RDK	SED	1		X					X							
3	BRL-HGSED-03 (0.5-1.6')	5/6/03	1025	RDK	SED	1		X					X							
4	BRL-HGSED-04 (0-0.5')	5/6/03	1040	RDK	SED	2		X					X	X						
5	BRL-HGSED-61 (0-0.5')	5/6/03	1230	RDK	SED	1		X					X							BLIND DUP OF BRL-HGSED-04 (0-0.5')
6	BRL-HGSED-06 (0-0.5')	5/6/03	1050	RDK	SED	1		X					X							
7	BRL-HGSED-08 (0-0.5')	5/6/03	1110	RDK	SED	1		X					X							
8	BRL-HGSED-10 (0-0.5')	5/6/03	1135	RDK	SED	1		X					X							
9	BRL-HGSED-11 (0-0.5')	5/6/03	1120	RDK	SED	1		X					X							
10	BRL-HGSED-11 (0.5-1.15')	5/6/03	1120	RDK	SED	1		X					X							

Shipping carrier: FEDEX #: 8371 2545 3103 # of coolers: 1

Relinquished by:	Date: 5/6/03	Time: 1700	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at BRL	Date:	Time:

White: LAB COPY **Yellow: CUSTOMER COPY**

SOLUTIA - BORROW PIT LAKE SEDIMENT SAMPLING

Brooks Rand LLC Chain Of Custody Record

Client: BRL	Email address:	Ship to: **Brooks Rand LLC**
Contact: DAVID LUDWIG	PO #: 107.94.001	3958 6th Avenue NW
Address: BLASLAND, BOUCK & LEE	Sampler's signatures: [signature]	Seattle, WA 98107
		Phone: 206-632-6206
	Fax COC for receipt confirmation? (Y / N) N circled	Fax: 206-632-6017
Phone #: (410) 295-1205	Client project ID: 102.94.001	Email: brl@brooksrand.com
Fax #:	BRL project ID: BRL-006	www.brooksrand.com

For BRL use only	*Cooler temp (°C):*	*Custody seals present? (Y / N)*	*Custody seals intact? (Y / N)*	*Date:*	*Initials:*

	Sample ID	*Collection*		*Miscellaneous*				*Field Preservation*					*Analyses required*							*Comments*
		Date	Time	Sampler (initials)	Matrix type	# of containers	Sample field filtered, Y/N	Unpreserved or ice only	HNO_3	HCl	BrCl	Other (specify)	TOTAL MERCURY SED BY 1631	MS/MSD						
1	BPL-HGSED-12 (0-0.5')	5/6/03	1145	RDK	SED	2		X					X	X						
2	BPL-HGSED-13 (0-0.5')	5/6/03	1155	RDK	SED	1		X					X							
3	BPL-HG-SED-13 (0.5-0.8')	5/6/03	1155	RDK	SED	1		X					X							
4	BPL-HGSED-15 (0-0.5')	5/6/03	1205	RDK	SED	1		X					X							
5	BPL-HGSED-15 (0.5-1.2')	5/6/03	1205	RDK	SED	1		X					X							
6	BPL-HGSED-71	5/6/03	1600	RDK	H2O	1		X					X							RINSE BLANK * NEEDS TO BE PRESERVED BY LAB
7																				
8																				
9																				
10																				

Shipping carrier: FEDEX 8371 2545 3103				# of coolers: 1	
Relinquished by: [signature]	Date: 5/6/03	Time: 1700	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at BRL:	Date:	Time:

White: LAB COPY **Yellow: CUSTOMER COPY**

Brooks Rand LLC Chain Of Custody Record

SOLUTIA - BORROW PIT LAKE SEDIMENT SAMPLING

Client: BBL	Email address:	Ship to: **Brooks Rand LLC**
Contact: DAVID LUDWIG	PO #: 102.94.001	3958 6th Avenue NW
Address:	Sampler's signatures:	Seattle, WA 98107
BLASLAND, BOUCK & LEE		Phone: 206-632-6206
	Fax COC for receipt confirmation? (Y / (N))	Fax: 206-632-6017
Phone #: (410) 295-1205	Client project ID: 102.94.001	Email: brl@brooksrand.com
Fax #:	BRL project ID: BBL006	www.brooksrand.com

For BRL use only | Cooler temp (°C): | Custody seals present? (Y / N) | Custody seals intact? (Y / N) | Date: | Initials:

	Sample ID	Collection: Date	Collection: Time	Miscellaneous: Sampler (initials)	Matrix type	# of containers	Sample field filtered, Y/N	Field Preservation: Unpreserved or ice only	HNO_3	HCl	BrCl	Other (specify)	Analyses required: TOTAL MERCURY SW846-7471	MS/MSD						Comments: SPACE w/ Colis Davis 5/7/03 @ 1700 CHANGED ANALYSIS TO METHYLMERCURY USEPA 1630
1	BPL-HGSED-02 (0-0.5')	5/6/03	1005	RDK	SED	1		X					X							
2	BPL-HGSED-03 (0-0.5')	5/6/03	1025	RDK	SED	1		X					X							
3	BPL-HGSED-03 (0.5-1.6')	5/6/03	1025	RDK	SED	1		X					X							
4	BPL-HGSED-04 (0-0.5')	5/6/03	1040	RDK	SED	2		X					X	X						
5	BPL-HGSED-61 (0-0.5')	5/6/03	1230	RDK	SED	1		X					X							BLIND DUP OF BPL-HGSED-04 (0-0.5')
6	BPL-HGSED-06 (0-0.5')	5/6/03	1050	RDK	SED	1		X					X							
7	BPL-HGSED-08 (0-0.5')	5/6/03	1110	RDK	SED	1		X					X							
8	BPL-HGSED-10 (0-0.5')	5/6/03	1135	RDK	SED	1		X					X							
9	BPL-HGSED-11 (0-0.5')	5/6/03	1120	RDK	SED	1		X					X							
10	BPL-HGSED-11 (0.5-1.15')	5/6/03	1120	RDK	SED	1		X					X							

Shipping carrier: FEDEX #: 8371 2545 3103 | # of coolers: 1

Relinquished by: | Date: 5/6/03 | Time: 1700 | Received by: | Date: | Time:

Relinquished by: | Date: | Time: | Received at BRL | Date: | Time:

White: LAB COPY **Yellow: CUSTOMER COPY**

SOLUTIA - BORROW PIT LAKE SEDIMENT SAMPLING

Brooks Rand LLC Chain Of Custody Record

Client: BRL	Email address:	Ship to: **Brooks Rand LLC**
Contact: DAVID LUDWIG	PO #: 102.94.001	3958 6th Avenue NW
Address:	Sampler's signatures: [illegible]	Seattle, WA 98107
BLASLAND, BOUCK & LEE		Phone: 206-632-6206
	Fax COC for receipt confirmation? (Y / N) N	Fax: 206-632-6017
Phone #: (410) 295-1205	Client project ID: 102.94.001	Email: brl@brooksrand.com
Fax #:	BRL project ID: BRL006	www.brooksrand.com

For BRL use only	Cooler temp (°C):	Custody seals present? (Y / N)	Custody seals intact? (Y / N)	Date:	Initials:

#	Sample ID	Collection: Date	Collection: Time	Misc.: Sampler (initials)	Misc.: Matrix type	Misc.: # of containers	Misc.: Sample field filtered, Y/N	Field Pres.: Unpreserved or ice only	Field Pres.: HNO_3	Field Pres.: HCl	Field Pres.: BrCl	Field Pres.: Other (specify)
1	BPL-HGSED-12(0-0.5')	5/6/03	1145	RDK	SED	2		X				
2	BPL-HGSED-13(0-0.5')	5/6/03	1155	RDK	SED	1		X				
3	BPL-HG-SED-13(0.5-0.8')	5/6/03	1155	RDK	SED	1		X				
4	BPL-HGSED-15(0-0.5')	5/6/03	1205	RDK	SED	1		X				
5	BPL-HGSED-15(0.5-1.2')	5/6/03	1205	RDK	SED	1		X				
6	BPL-HGSED-71	5/6/03	1600	RDK	H2O	1		X				
7												
8												
9												
10												

#	Analyses required: TOTAL MERCURY / SED BY ...	Analyses required: MS/MSD						Comments
1	X	X						SPOKE w/ COLIN DAVIES 5/5/03 @ 1700 CHANGED ANALYSIS TO METHYLMERCURY USEPA 1630
2	X							
3	X							
4	X							
5	X							
6	X							RINSE BLANK [illegible] TO BE [illegible] BY LAB
7								
8								
9								
10								

Shipping carrier: FEDEX 8371 2545 3103				# of coolers: 1	
Relinquished by: [illegible]	Date: 5/6/03	Time: 1700	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at BRL:	Date:	Time:

White: LAB COPY **Yellow: CUSTOMER COPY**

SAMPLE CUSTODY RECORD
(SOP# MSL-A-001 & MSL-A-002)

Date: 5/7/03

Battelle
. . . *Putting Technology To Work*
Pacific Northwest Division
Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

Project Name: Solutia - Borrow Pit Lake Sediment Sampling
Project Manager: David Ludwig
Phone Number: (410) 295-1205
Shipment Method: FedEx #: 8321 2545 3136
Preservation: ice

Line	Field Sample ID	Collection Date/Time	Matrix	No. of Containers	Test Parameters: [illegible]	MS/MSD				Laboratory ID	Observations/Comments
1	BPL-HGSED-14(0-0.5)	5/7/03 0730	SED	1	X						
2	BPL-HGSED-62(0-0.5)	5/7/03 1230	SED	1	X						BLIND DUPLICATE OF BPL-HGSED-14(0-0.5)
3	BPL-HGSED-16(0-0.5)	5/7/03 0715	SED	2	X	X					
4	BPL-HGSED-18(0-0.5)	5/7/03 0745	SED	1	X						
5	BPL-HGSED-20(0-0.5)	5/7/03 0800	SED	1	X						
6	BPL-HGSED-22(0-0.5)	5/7/03 0815	SED	1	X						
7	BPL-HGSED-23(0-0.5)	5/7/03 0830	SED	1	X						
8	BPL-HGSED-23(0.5-1.1)	5/7/03 0830	SED	2	X	X					
9	BPL-HGSED-24(0-0.5)	5/7/03 1030	SED	1	X						
10	BPL-HGSED-25(0-0.5)	5/7/03 0810	SED	1	X						
11	BPL-HGSED-5(0.5-1.0)	5/7/03 0840	SED	1	X						
12	BPL-HGSED-26(0-0.5)	5/7/03 0905	SED	1	X						
13	BPL-HGSED-27(0-0.5)	5/7/03 0940	SED	1	X						
14	BPL-HGSED-27(0.5-1.5)	5/7/03 0940	SED	1	X						
15	BPL-HGSED-28(0-0.5)	5/7/03 0925	SED	1	X						

Relinquished By: Ronald Kuhn
Company: ASI
Signature/Printed Name: [signature]
Date/Time: 5/7/03 1700

Received By:
Company:
Signature/Printed Name
Date/Time

Relinquished By:
Company:
Signature/Printed Name
Date/Time

Received By:
Company:
Signature/Printed Name
Date/Time

2 of 2

SAMPLE CUSTODY RECORD

(SOP# MSL-A-001 & MSL-A-002)

Date: 5/7/03

Battelle
. . . *Putting Technology To Work*
Pacific Northwest Division
Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

Project Name: [illegible] Sediment Sampling [illegible]
Project Manager: David [illegible]
Phone Number: (910) 295-1205
Shipment Method: [illegible] #: 8371 2515 3136
Preservation: 4°C

Line	Field Sample ID	Collection Date/Time	Matrix	No. of Containers	Test Parameters: [illegible]	MS/MSD				Laboratory ID	Observations/Comments
1	BPL-HGSED-8(0-0.5)	5/7/03 0715	SED	1	X						
2	BPL-HGSED-21(0.5-0.8)	5/7/03 0715	SED	1	X						
3	BPL-HGSED-30(0-0.5')	5/7/03 1105	SED	1	X						
4	BPL-HGSED-63(0-0.5)	5/7/03 1300	SED	1	X						Blind duplicate of BPL-HGSED-30 (0-0.5')
5	BPL-HGSED-31(0-0.5)	5/7/03 1055	SED	1	X						
6	BPL-HGSED-31(0.5-1.2)	5/7/03 1055	SED	1	X						
7	BPL-HGSED-37(0-0.5)	5/7/03 1030	SED	2	X	X					
8	BPL-HGSED-72	5/7/03 1600	H2O	1	X						Rinse Blank [illegible]
9											[illegible]
10											
11											
12											
13											
14											
15											

Relinquished By: [illegible] Company: EBC
[signature]
Signature/Printed Name
Date/Time: 5/7/03 2010

Received By: Company:
Signature/Printed Name
Date/Time

Relinquished By: Company:
Signature/Printed Name
Date/Time

Received By: Company:
Signature/Printed Name
Date/Time

Brooks Rand LLC Chain Of Custody Record

Client: BRL	Email address:	Ship to: **Brooks Rand LLC**
Contact: DAVID LUDWIG	PO #: 102.94.001	3958 6th Avenue NW
Address:	Sampler's signatures: [signature]	Seattle, WA 98107
BLASLAND, BOUCK & LEE		Phone: 206-632-6206
	Fax COC for receipt confirmation? (Y / (N))	Fax: 206-632-6017
Phone #: (410) 295-1205	Client project ID: 102.94.001	Email: brl@brooksrand.com
Fax #:	BRL project ID: BRL 006	www.brooksrand.com

For BRL use only | *Cooler temp (°C):* | *Custody seals present? (Y / N)* | *Custody seals intact? (Y / N)* | *Date:* | *Initials:*

	Sample ID	Collection: Date	Collection: Time	Miscellaneous: Sampler (initials)	Miscellaneous: Matrix type	Miscellaneous: # of containers	Miscellaneous: Sample field filtered, Y/N	Field Preservation: Unpreserved or ice only	Field Preservation: HNO_3	Field Preservation: HCl	Field Preservation: BrCl	Field Preservation: Other (specify)	Analyses required: ~~TOTAL MERCURY~~ METHYL MERCURY ~~BY~~ USEPA 1630	Analyses required: MS/MSD	Analyses required	Analyses required	Analyses required	Analyses required	Analyses required	***Comments***
1	BRL-HGSED-14 (0-0.5')	5/7/03	0730	RDK	SED	1		X					X							
2	BRL-HGSED-62 (0-0.5')	↓	1230	↓	↓	1		X					X							BLIND DUPLICATE OF BRL-HGSED-14 (0-0.5')
3	BRL-HGSED-16 (0-0.5')	↓	0715	↓	↓	2		X					X	X						
4	BRL-HGSED-18 (0-0.5')	↓	0745	↓	↓	1		X					X							
5	BRL-HGSED-20 (0-0.5')	↓	0800	↓	↓	1		X					X							
6	BRL-HGSED-22 (0-0.5')	↓	0815	↓	↓	1		X					X							
7	BRL-HGSED-23 (0-0.5')	↓	0830	↓	↓	1		X					X							
8	BRL-HGSED-23 (0.5-1.1')	↓	0830	↓	↓	2		X					X	X						
9	BRL-HGSED-24 (0-0.5')	↓	1030	↓	↓	1		X					X							
10	BRL-HGSED-25 (0-0.5')	↓	0840	↓	↓	1		X					X							

Shipping carrier: FEDEX # 8371 2545 2125				# of coolers: 1	
Relinquished by: [signature]	Date: 5/7/03	Time: 1300	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at BRL:	Date:	Time:

White: LAB COPY **Yellow: CUSTOMER COPY**

Brooks Rand LLC Chain Of Custody Record

Client: RBC	Email address:	Ship to: **Brooks Rand LLC**
Contact: DAVID LUDWIG	PO #: 10294.001	3958 6th Avenue NW
Address:	Sampler's signatures: [signature]	Seattle, WA 98107
BLASLAND, BOUCK & LEE		Phone: 206-632-6206
	Fax COC for receipt confirmation? (Y / (N))	Fax: 206-632-6017
Phone #: (410) 295-1205	Client project ID: 10294.001	Email: brl@brooksrand.com
Fax #:	BRL project ID: BBL006	www.brooksrand.com

For BRL use only	Cooler temp (°C):	Custody seals present? (Y / N)	Custody seals intact? (Y / N)	Date:	Initials:

	Sample ID	Collection		Miscellaneous				Field Preservation					Analyses required							Comments
		Date	Time	Sampler (initials)	Matrix type	# of containers	Sample field filtered, Y/N	Unpreserved or ice only	HNO_3	HCl	BrCl	Other (specify)	TOTAL MERCURY / METHYL MERCURY [illegible] USEPA 1630							
1	BDL-HGSED-25(0.5-1.0')	5/7/03	0840	RDK	SED	1		X					X							
2	BDL-HGSED-26(0-0.5')	↓	0905	↓	↓	1		X					X							
3	BDL-HGSED-27(0-0.5')	↓	0940	↓	↓	1		X					X							
4	BDL-HGSED-27(0.5-1.15')	↓	0940	↓	↓	1		X					X							
5	BDL-HGSED-28(0-0.5')	↓	0925	↓	↓	1		X					X							
6	BDL-HGSED-29(0-0.5')	↓	0915	↓	↓	1		X					X							
7	BDL-HGSED-29(0.5-0.8')	↓	0915	↓	↓	1		X					X							
8	BDL-HGSED-30(0-0.5')	↓	1105	↓	↓	1		X					X							
9	BDL-HGSED-63(0-0.5')	↓	1300	↓	↓	1		X					X							BLIND DUPLICATE of BDL-HGSED-30(0-0.5)
10	BDL-HGSED-31(0-0.5')	↓	1055	↓	↓	1		X					X							

Shipping carrier: FEDEX #: 8371 2545 3125			# of coolers: 1		
Relinquished by: [signature]	Date: 5/7/03	Time: 1200	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at BRL:	Date:	Time:

White: LAB COPY Yellow: CUSTOMER COPY

Brooks Rand LLC Chain Of Custody Record

Client: BBL	Email address:	Ship to: **Brooks Rand LLC**
Contact: DAVID LUDWIG	PO #: 102.94.001	3958 6th Avenue NW
Address: BLASLAND BOUCK & LEE	Sampler's signatures:	Seattle, WA 98107
	Fax COC for receipt confirmation? (Y / N)	Phone: 206-632-6206
Phone #: (410) 235-1205	Client project ID: 102.94.001	Fax: 206-632-6017
Fax #:	BRL project ID: BBL006	Email: brl@brooksrand.com
		www.brooksrand.com

For BRL use only	Cooler temp (°C):	Custody seals present? (Y / N)	Custody seals intact? (Y / N)	Date:	Initials:

	Sample ID	Collection: Date	Collection: Time	Miscellaneous: Sampler (initials)	Miscellaneous: Matrix type	Miscellaneous: # of containers	Miscellaneous: Sample field filtered, Y/N	Field Preservation: Unpreserved or ice only	Field Preservation: HNO_3	Field Preservation: HCl	Field Preservation: BrCl	Field Preservation: Other (specify)	Analyses required: TOTAL MERCURY (EPA 7471) / METHYLMERCURY (EPA 1630)	Analyses required: NS/NSD	Analyses required	Analyses required	Analyses required	Analyses required	Analyses required	Comments
1	BPL-HGSED-31(0.5-1.2')	5/1/03	1055	RSK	SED	1		X					X							
2	BPL-HGSED-32(0-0.5')	"	1050	"	"	2		X					X	X						
3	BPL-HGSED-72	"	1600	"	H2O	1		X					X							ROSE BLANK * NEEDS TO BE PRESERVED BY LABORATORY
4																				
5																				
6																				
7																				
8																				
9																				
10																				

Shipping carrier: FEDEX #: 8371 2545 3125				# of coolers:	
Relinquished by:	Date: 5/1/03	Time: 1200	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at BRL:	Date:	Time:

White: LAB COPY **Yellow: CUSTOMER COPY**

SAMPLE CUSTODY RECORD

(SOP# MSL-A-001 & MSL-A-002)

Date: 5/8/03

Battelle
. . . Putting Technology To Work
Pacific Northwest Division
Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

Project Name: [illegible] Lake Sediment Sampling
Project Manager: [illegible]
Phone Number: [illegible]
Shipment Method: FedEx #: 8371 2545 5158
Preservation: 4°C

Line	Field Sample ID	Collection Date/Time		Matrix	No. of Containers	Total Mercury SW846-7471	MS/MSD				Laboratory ID	Observations/Comments
1	APL-HGSED-33(0-0.5')	5/8/03	0750	SED	1	X						
2	APL-HGSED-33(0.5-1.25')	|	0750	|	2	X	X					
3	APL-HGSED-69(0-0.5')	|	1200	|	1	X						Blind Duplicate of APL-HGSED-33(0-0.5')
4	APL-HGSED-34(0-0.5')	|	0800	|	1	X						
5	APL-HGSED-35(0-0.5')	|	0810	|	1	X						
6	APL-HGSED-35(0.5-1.5')	|	0810	|	1	X						
7	APL-HGSED-36(0-0.5')	|	0825	|	1	X						
8	APL-HGSED-37(0-0.5')	|	0835	|	1	X						
9	APL-HGSED-37(0.5-1.2')	|	0845	|	1	X						
10	APL-HGSED-38(0-0.5')	|	0840	|	2	X	X					
11	APL-HGSED-39(0-0.5')	|	0930	|	1	X						
12	APL-HGSED-39(0.5-1.5')	|	0930	|	1	X						
13	APL-HGSED-40(0-0.5')	|	0935	|	1	X						
14	APL-HGSED-41(0-0.5')	|	0955	|	1	X						
15	APL-HGSED-41(0.5-1.5')	↓	0955	↓	1	X						

Relinquished By: Richard Kim   Company: APL
Signature/Printed Name: [signature]   Date/Time: 5/8/03 1000

Received By: Company:
Signature/Printed Name   Date/Time

Relinquished By: Company:
Signature/Printed Name   Date/Time

Received By: Company:
Signature/Printed Name   Date/Time

Rev. 020102COC   *Distribution: White - Laboratory, Project Files ...*

SAMPLE CUSTODY RECORD

(SOP# MSL-A-001 & MSL-A-002)

Date: 5/8/03

Battelle
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Pacific Northwest Division
Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

Project Name: Solutia - Bloody Pit Lake Sediment Sampling
Project Manager: [illegible]
Phone Number: (410) 295-1205
Shipment Method: FedEx #: 8371 2515 3158
Preservation: 4°C

Line	Field Sample ID	Collection Date/Time		Matrix	No. of Containers	Total Mercury SW846 7471	MS/MSD				Laboratory ID	Observations/Comments
1	BPL-HGSED-92(0-0.5')	5/8/03	0720	SED	1	X						
2	BPL-HGSED-93(0-0.5')		0730		1	X						
3	BPL-HGSED-45(0.5-1.5')		0730		1	X						
4	BPL-HGSED-44(0-0.5')		1000		1	X						
5	BPL-HGSED-65(0-0.5')		1700		1	X						Blind Duplicate of BPL-HGSED-44(0-0.5')
6	BPL-HGSED-95(0-0.5')		0750		1	X						
7	BPL-HGSED-45(0.5-1.5')		0750		1	X						
8	BPL-HGSED-96(0-0.5')		0940		2	X	X					
9	BPL-HGSED-53(0-0.5')		1015		1	X						
10	BPL-HGSED-53(0.5-1.5')		1015		1	X						
11	BPL-HGSED-23		1600	H2O	1	X						Core Blank } [illegible]
12	BPL-HGSED-71		1115	H2O	1	X						Rinse Blank } [illegible]
13												
14												
15												

Relinquished By: [signature] Company: BPL
Signature/Printed Name: [signature] Date/Time: 5/8/03 1200

Received By: Company:
Signature/Printed Name Date/Time

Relinquished By: Company:
Signature/Printed Name Date/Time

Received By: Company:
Signature/Printed Name Date/Time

Brooks Rand LLC Chain Of Custody Record

Client: BRL	Email address:	Ship to: **Brooks Rand LLC**
Contact: DAVID LUDWIG	PO #: 102.94-001	3958 6th Avenue NW
Address: BLASLAND, BOUCK & LEE	Sampler's signatures:	Seattle, WA 98107
		Phone: 206-632-6206
	Fax COC for receipt confirmation? (Y/N)	Fax: 206-632-6017
Phone #: (410) 295-1205	Client project ID: 102.94-001	Email: brl@brooksrand.com
Fax #:	BRL project ID: BBL006	www.brooksrand.com

For BRL use only	Cooler temp (°C):	Custody seals present? (Y/N)	Custody seals intact? (Y/N)	Date:	Initials:

	Sample ID	Collection: Date	Collection: Time	Misc: Sampler (initials)	Misc: Matrix type	Misc: # of containers	Misc: Sample field filtered, Y/N	Field Preservation: Unpreserved or ice only	Field Preservation: HNO_3	Field Preservation: HCl	Field Preservation: BrCl	Field Preservation: Other (specify)	Analyses required: METHYL MERCURY USEPA 1630	Analyses required: MS/MSD	Comments
1	BPL-HGSED-33(0-0.5')	5/8/13	0750	RDK	SED	1		X					X		
2	BPL-HGSED-33(0.5-1.5')	"	0750	"	"	2		X					X	X	
3	BPL-HGSED-64(0-0.5')	"	1200	"	"	1		X					X		BLIND DUPLICATE OF BPL-HGSED-33(0-0.5')
4	BPL-HGSED-34(0-0.5')	"	0800	"	"	1		X					X		
5	BPL-HGSED-35(0-0.5')	"	0810	"	"	1		X					X		
6	BPL-HGSED-35(0.5-1.5')	"	0810	"	"	1		X					X		
7	BPL-HGSED-36(0-0.5')	"	0825	"	"	1		X					X		
8	BPL-HGSED-37(0-0.5')	"	0815	"	"	1		X					X		
9	BPL-HGSED-37(0.5-1.2')	"	0815	"	"	1		X					X		
10	BPL-HGSED-38(0-0.5')	↓	0840	↓	↓	2		X					X	X	

Shipping carrier: FEDEX #: 8321 2515 3147 # of coolers: 1

Relinquished by:	Date: 5/8/13	Time: 1700	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at BRL	Date:	Time:

White: LAB COPY **Yellow: CUSTOMER COPY**

Brooks Rand LLC Chain Of Custody Record

Client: BBL	Email address:	Ship to: **Brooks Rand LLC**
Contact: PAUL LUDWIG	PO #: 102.94.001	3958 6th Avenue NW
Address: BLASLAND, BOUCK & LEE	Sampler's signatures:	Seattle, WA 98107
		Phone: 206-632-6206
	Fax COC for receipt confirmation? (Y/(N))	Fax: 206-632-6017
Phone #: (410) 295-1205	Client project ID: 102.94.001	Email: brl@brooksrand.com
Fax #:	BRL project ID: BRL006	www.brooksrand.com

For BRL use only	Cooler temp (°C):	Custody seals present? (Y / N)	Custody seals intact? (Y / N)	Date:	Initials:

	Sample ID	Collection: Date	Collection: Time	Misc: Sampler (initials)	Misc: Matrix type	Misc: # of containers	Misc: Sample field filtered, Y/N	Field Preservation: Unpreserved or ice only	Field Preservation: HNO_3	Field Preservation: HCl	Field Preservation: BrCl	Field Preservation: Other (specify)	Analyses required: METHYL MERCURY USEPA 1630	Analyses required: MS/MSD	Comments
1	BPL-H6SED-39(0-0.5')	5/8/03	0850	PDK	SLD	1		X					X		
2	BPL-H6SED-39(0.5-1.5')		0850					X					X		
3	BPL-H6SED-40(0-0.5')		0905					X					X		
4	BPL-H6SED-41(0-0.5')		0855					X					X		
5	BPL-H6SED-41(0.5-1.4')		0855					X					X		
6	BPL-H6SED-42(0-0.5')		0920					X					X		
7	BPL-H6SED-43(0-0.5')		0930					X					X		
8	BPL-H6SED-43(0.5-1.5')		0930					X					X		
9	BPL-H6SED-44(0-0.5')		1000					X					X		
10	BPL-H6SED-45(0-0.5')	↓	1300	↓	↓			X					X		BLANK DUPLICATE OF BPL-H6SED-44(0-0.5')

Shipping carrier: FEDEX #: 8371 7545 3147 # of coolers: 1

Relinquished by:	Date: 5/8/03	Time: 2000	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at BRL:	Date:	Time:

White: LAB COPY **Yellow: CUSTOMER COPY**

Brooks Rand LLC Chain Of Custody Record

Client: BRL	Email address:	Ship to: **Brooks Rand LLC**
Contact: DAVID LUDLOW	PO #: 107.94.001	3958 6th Avenue NW
Address: BIASLAND, BOOCE; LEE	Sampler's signatures:	Seattle, WA 98107
	Fax COC for receipt confirmation? (Y/(N))	Phone: 206-632-6206
Phone #: (410) 295-1705	Client project ID: 107.94.001	Fax: 206-632-6017
Fax #:	BRL project ID: BRL006	Email: brl@brooksrand.com
		www.brooksrand.com

For BRL use only	Cooler temp (°C):	Custody seals present? (Y/N)	Custody seals intact? (Y/N)	Date:	Initials:

	Sample ID	Collection: Date	Collection: Time	Misc: Sampler (initials)	Misc: Matrix type	Misc: # of containers	Misc: Sample field filtered, Y/N	Field Preservation: Unpreserved or ice only	Field Preservation: HNO_3	Field Preservation: HCl	Field Preservation: BrCl	Field Preservation: Other (specify)	Analyses required: METHYLMERCURY USE DA 1630	Analyses required: MS/MSD	Comments
1	BPL-H6SED-45(0-0.5')	5/8/13	0950	RNR	SED	1		X					X		RINSE BLANKS NEED TO BE PREPARED BY LABORATORY
2	BPL-H6SED-45(0.5-4.4')		0950			1		X					X		
3	BPL-H6SED-46(0-0.5)		0940			2		X					X	X	
4	BPL-H6SED-53(0-0.5')		1015			1		X					X		
5	BPL-H6SED-53(0.5-1.5')		1015			1		X					X		
6	BPL-H6SED-23		1100		H20	1		X					X		RINSE BLANK
7	BPL-H6SED-24		1615		H20	1		X					X		RINSE BLANK
8															
9															
10															

Shipping carrier: FEDEX #: 8321 2545 3147 # of coolers: 1

Relinquished by:	Date: 5/8/13	Time: 1700	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at BRL:	Date:	Time:

White: LAB COPY Yellow: CUSTOMER COPY

SAMPLE CUSTODY RECORD

(SOP# MSL-A-001 & MSL-A-002)

Date: 5/9/03

Battelle
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Pacific Northwest Division
Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

Project Name: Solutia - Borrow Pit Lake Sediment Sampling
Project Manager: David Ludwig
Phone Number: (410) 295-1205

Shipment Method: Fedex #: 8371 2545 3170
Preservation: ice

Line	Field Sample ID	Collection Date/Time	Matrix	No. of Containers	Total Mercury SW846-7471	MS/MSD				Laboratory ID	Observations/Comments
1	BPL-HGSED-55(0-0.5')	5/9/03 0715	SED	1	X						
2	BPL-HGSED-55(0.5-1.5')	0715		1	X						
3	BPL-HGSED-56(0-0.5')	0735		1	X						
4	BPL-HGSED-66(0-0.5')	1200		1	X						Blind duplicate of BPL-HGSED-56(0-0.5')
5	BPL-HGSED-57(0-0.5')	0810		1	X						
6	BPL-HGSED-57(0.5-1.5')	0810		2	X	X					
7	BPL-HGSED-58(0-0.5')	0825		1	X						
8	BPL-HGSED-59(0-0.5')	0720		1	X						
9	BPL-HGSED-59(0.5-1.5')	0720		1	X						
10	BPL-HGSED-54(0-0.5')	0755		1	X						
11	BPL-HGSED-75	1130	H2O	1	X						Rinse Blank - Needs to be
12											Preserved in Laboratory
13											
14											
15											

Relinquished By: Ronald D [illegible] Company: BBL
Signature/Printed Name: [signature] Date/Time: 5/9/03 1300

Received By: Company:
Signature/Printed Name Date/Time

Relinquished By: Company:
Signature/Printed Name Date/Time

Received By: Company:
Signature/Printed Name Date/Time

Brooks Rand LLC Chain Of Custody Record

Page 1 of 2

Client: BRL	Email address:	Ship to: **Brooks Rand LLC**
Contact: DAVID LUDWIG	PO #: 102.94.001	3958 6th Avenue NW
Address: BLASLAND, BOUCK & LEE	Sampler's signatures:	Seattle, WA 98107
	Fax COC for receipt confirmation? (Y / N)	Phone: 206-632-6206
Phone #: (410) 295-1205	Client project ID: 102.94.001	Fax: 206-632-6017
Fax #:	BRL project ID: BRL006	Email: brl@brooksrand.com
		www.brooksrand.com

For BRL use only	Cooler temp (°C):	Custody seals present? (Y / N)	Custody seals intact? (Y / N)	Date:	Initials:

	Sample ID	Collection: Date	Collection: Time	Miscellaneous: Sampler (initials)	Miscellaneous: Matrix type	Miscellaneous: # of containers	Miscellaneous: Sample field filtered, Y/N	Field Preservation: Unpreserved or ice only	Field Preservation: HNO_3	Field Preservation: HCl	Field Preservation: BrCl	Field Preservation: Other (specify)	Analyses required: METHYLMERCURY USEPA 1630	Analyses required: MS/MSD	Comments
1	BRL-HGSED-55(0-0.5')	5/9/03	0745	BNK	SED	1		X					X		
2	BRL-HGSED-55(0.5-1.5')	"	0745	"	"	1		X					X		
3	BRL-HGSED-56(0-0.5')	"	0735	"	"	1		X					X		
4	BRL-HGSED-66(0-0.5')	"	1200	"	"	1		X					X		Blind Duplicate of BRL-HGSED-56(0-0.5')
5	BRL-HGSED-57(0-0.5')	"	0840	"	"	1		X					X		
6	BRL-HGSED-57(0.5-1.5')	"	0840	"	"	2		X					X	X	
7	BRL-HGSED-58(0-0.5')	"	0825	"	"	1		X					X		
8	BRL-HGSED-59(0-0.5')	"	0720	"	"	1		X					X		
9	BRL-HGSED-59(0.5-1.5')	"	0720	"	"	1		X					X		
10	BRL-HGSED-54(0-0.5')	↓	0755	↓	↓	1		X					X		

Shipping carrier: FEDEX #: 8371 2545 3119 # of coolers: 1

Relinquished by:	Date: 5/9/03	Time: 1300	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at BRL	Date:	Time:

White: LAB COPY **Yellow: CUSTOMER COPY**

Brooks Rand LLC Chain Of Custody Record

Page 2 of 2

Client: RBL	Email address:	Ship to: **Brooks Rand LLC**
Contact: DAVID LUDWIG	PO #: 102.94.001	3958 6th Avenue NW
Address: BLASLAND, BOUCK & LEE	Sampler's signatures:	Seattle, WA 98107
	Fax COC for receipt confirmation? (Y (N)	Phone: 206-632-6206
Phone #: (410) 285-1205	Client project ID: 102.94.001	Fax: 206-632-6017
Fax #:	BRL project ID: BBL006	Email: brl@brooksrand.com
		www.brooksrand.com

For BRL use only	Cooler temp (°C):	Custody seals present? (Y / N)	Custody seals intact? (Y / N)	Date:	Initials:

	Sample ID	Collection		Miscellaneous				Field Preservation					Analyses required							Comments
		Date	Time	Sampler (initials)	Matrix type	# of containers	Sample field filtered, Y/N	Unpreserved or ice only	HNO_3	HCl	BrCl	Other (specify)	METHYLMERCURY USEPA 1630							
1	BAL-HGSED-75	5/1/03	1130	RDK	H2O	1		X					X							RINSE BLANK - NEEDS TO BE PRESERVED BY LABORATORY
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

Shipping carrier: FEDEX #: 8371 2545 3169 # of coolers:

Relinquished by:	Date: 5/1/03	Time: 1300	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at BRL	Date:	Time:

White: LAB COPY **Yellow: CUSTOMER COPY**

Brooks Rand LLC Chain Of Custody Record

Page 1 of 1

Client: BBL	Email address:	Ship to: **Brooks Rand LLC**
Contact: DAVID LUDWIG	PO #: 102.94.001	3958 6th Avenue NW
Address: BLASLAND, BOUCK & LEE	Sampler's signatures:	Seattle, WA 98107
	Fax COC for receipt confirmation? (Y / N)	Phone: 206-632-6206
Phone #: (410) 295-1705	Client project ID: 102.94.006	Fax: 206-632-6017
Fax #:	BRL project ID: BBL006	Email: brl@brooksrand.com
		www.brooksrand.com

For BRL use only	Cooler temp (°C):	Custody seals present? (Y / N)	Custody seals intact? (Y / N)	Date:	Initials:

	Sample ID	Collection: Date	Collection: Time	Misc: Sampler (initials)	Misc: Matrix type	Misc: # of containers	Misc: Sample field filtered, Y/N	Field Preservation: Unpreserved or ice only	Field Preservation: HNO_3	Field Preservation: HCl	Field Preservation: BrCl	Field Preservation: Other (specify)	Analyses required: ~~METHYL~~ MERCURY USEPA 1630	Analyses required: MS/MSD	Comments
1	BBL-H6SED-01 (0-0.5')	5/12/03	1145	BDK	SED	1		X					X		
2	BBL-H6SED-01 (0.5-0.9')		1145			1		X					X		
3	BBL-H6SED-67 (0-0.5')		1330			1		X					X		BLIND DUPLICATE OF BBL-H6SED-01 (0-0.5')
4	BBL-H6SED-05 (0-0.5')		1230			2		X					X	X	
5	BBL-H6SED-05 (0.5-1.5')		1230			1		X					X		
6	BBL-H6SED-07 (0-0.5')		1245			1		X					X		
7	BBL-H6SED-07 (0.5-1.4')		1245			1		X					X		
8	BBL-H6SED-09 (0-0.5')		1300			1		X					X		
9	BBL-H6SED-09 (0.5-1.5')		1300		↓	1		X					X		
10	BBL-H6SED-76	↓	1500	↓	H2O	1		X					X		* RINSE BLANK APPEARS TO BE DISPERSED BY LABORATORY

Shipping carrier: FEDEX # 8371 2515 3180 — # of coolers: 1

Relinquished by: RONALD D KUHN	Date: 5/12/03	Time: 1600	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at BRL	Date:	Time:

White: LAB COPY **Yellow: CUSTOMER COPY**

SAMPLE CUSTODY RECORD

(SOP# MSL-A-001 & MSL-A-002)

Date: 5/12/03

Battelle
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Pacific Northwest Division
Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

Project Name: SOLUTIA - ROBERTA DIT CAKE SEDIMENT SAMPLING
Project Manager: DAVID LUNDIN
Phone Number: (410) 295-1205
Shipment Method: FEDEX #: 8371 2545 3171
Preservation: 4°C

Line	Field Sample ID	Collection Date/Time	Matrix	No. of Containers	Test Parameters: 7471 Mercury SW846	Test Parameters: MS/MSD	Test Parameters	Test Parameters	Test Parameters	Laboratory ID	Observations/Comments
1	BDL-HGSED-01 (0-0.5')	5/12/03 1145	SED	1	X						
2	BDL-HGSED-01 (0.5-0.9')	1145		1	X						
3	BDL-HGSED-67 (0-0.5')	1330		1	X						BLIND DUPLICATE OF BDL-HGSED-01 (0-0.5')
4	BDL-HGSED-05 (0-0.5')	1230		2	X	X					
5	BDL-HGSED-05 (0.5-1.5')	1230		1	X						
6	BDL-HGSED-07 (0-0.5')	1245		1	X						
7	BDL-HGSED-07 (0.5-1.4')	1245		1	X						
8	BDL-HGSED-09 (0-0.5')	1300		1	X						
9	BDL-HGSED-09 (0.5-1.5')	1300		1	X						
10	BDL-HGSED-76	1500	H2O	1	X						*RINSE BLANK - NEEDS TO BE PREPARED BY LABORATORY
11											
12											
13											
14											
15											

Relinquished By: RONALD D. KUN Company: BBL
Signature/Printed Name: [signature] Date/Time: 5/12/03 1600

Received By: Company:
Signature/Printed Name: Date/Time:

Relinquished By: Company:
Signature/Printed Name: Date/Time:

Received By: Company:
Signature/Printed Name: Date/Time:

Rev. 020102COC

Distribution: White - Laboratory, Project Files Yellow - Laboratory, Client Pink - Sampler

SAMPLE CUSTODY RECORD

(SOP# MSL-A-001 & MSL-A-002)

Date: 5/13/03

Battelle
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Pacific Northwest Division
Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

Project Name: SOLUTIA - BOBBS PIT LAKE SEDIMENT SAMPLING
Project Manager: DAVID LUDWIG
Phone Number: (410) 295-1705

Shipment Method: FEDEX #: 837125453228
Preservation: 4°C

Line	Field Sample ID	Collection Date/Time	Matrix	No. of Containers	Test Parameters: TOTAL MERCURY SW846 7471	Test Parameters: MS/MSD	Test Parameters	Test Parameters	Test Parameters	Laboratory ID	Observations/Comments
1	BPL-H6SED-60(0-0.5')	5/13/03 0920	SED	1	X						
2	BPL-H6SED-17(0-0.5')	0725		1	X						
3	BPL-H6SED-17(0.5-1.2')	0725		1	X						
4	BPL-H6SED-19(0-0.5')	0740		1	X						
5	BPL-H6SED-19(0.5-1.5')	0740		1	X						
6	BPL-H6SED-21(0-0.5')	0750		1	X						
7	BPL-H6SED-21(0.5-1.3')	0750		1	X						
8	BPL-H6SED-47(0-0.5')	0810		1	X						
9	BPL-H6SED-47(0.5-1.4')	0810		1	X						
10	BPL-H6SED-48(0-0.5')	0820		1	X						
11	BPL-H6SED-68(0-0.5')	1000		1	X						BLIND DUPLICATE OF BPL-H6SED-48(0-0.5')
12	BPL-H6SED-49(0-0.5')	0830		1	X						
13	BPL-H6SED-49(0.5-1.3')	0840		1	X						
14	BPL-H6SED-50(0-0.5')	0855		2	X	X					
15	BPL-H6SED-51(0-0.5')	0845		1	X						

Relinquished By:	Company:	Received By:	Company:
ROLAND D. KUHN	BBL		
Signature/Printed Name	Date/Time: 5/13/03 1500	Signature/Printed Name	Date/Time
Relinquished By:	Company:	Received By:	Company:
Signature/Printed Name	Date/Time	Signature/Printed Name	Date/Time

Rev. 020102COC

Distribution: White - Laboratory, Project Files Yellow - Laboratory, Client Pink - Sampler

SAMPLE CUSTODY RECORD

(SOP# MSL-A-001 & MSL-A-002)

Date: 5/13/03

Battelle
. . . Putting Technology To Work

Pacific Northwest Division
Marine Sciences Laboratory
1529 West Sequim Bay Road
Sequim, Washington 98382

Project Name: SOLUTIA - BORROW PIT LAKE SEDIMENT SAMPLING
Project Manager: DAVID HUMPHREY
Phone Number: (410) 272-1205
Shipment Method: FEDEX #: 8371 2545 3238
Preservation: 4°C

Line	Field Sample ID	Collection Date/Time	Matrix	No. of Containers	Test Parameters: TOTAL MERCURY SW846 7471	Test Parameters: MS/MSD	Test Parameters	Test Parameters	Test Parameters	Laboratory ID	Observations/Comments
1	BPL-HGSED-51(0.5-1.2')	5/13/03 0845	SED	1	X						
2	BPL-HGSED-52(0.0-0.5)	" 0855	"	2	X	X					
3	BPL-HGSED-77	" 1330	H2O	1	X						RINSE BLANK NEEDS TO BE PREPARED BY LABORATORY
4											
5											
6											
7											
8											
9											
10											
11											
12						1					
13											
14											
15											

Relinquished By:	Company:	Received By:	Company:
RONALD D. KING	BBL		
Signature/Printed Name	5/13/03 1500 Date/Time	Signature/Printed Name	Date/Time
Relinquished By:	Company:	Received By:	Company:
Signature/Printed Name	Date/Time	Signature/Printed Name	Date/Time

Rev. 020102COC

Distribution: White - Laboratory, Project Files Yellow - Laboratory, Client Pink - Sampler

Brooks Rand LLC Chain Of Custody Record

Page 1 of 2

Client: BBL	Email address:	Ship to: **Brooks Rand LLC**
Contact: DAVID LUDWIG	PO #: 102.94.001	3958 6th Avenue NW
Address: BLASLAND, BOUCK & LEE	Sampler's signatures:	Seattle, WA 98107
		Phone: 206-632-6206
	Fax COC for receipt confirmation? (Y / (N))	Fax: 206-632-6017
Phone #: (410) 285-1205	Client project ID: 102.94.001	Email: brl@brooksrand.com
Fax #:	BRL project ID: BBL-006	www.brooksrand.com

For BRL use only	Cooler temp (°C):	Custody seals present? (Y / N)	Custody seals intact? (Y / N)	Date:	Initials:

	Sample ID	Collection: Date	Collection: Time	Miscellaneous: Sampler (initials)	Miscellaneous: Matrix type	Miscellaneous: # of containers	Miscellaneous: Sample field filtered, Y/N	Field Preservation: Unpreserved or ice only	Field Preservation: HNO_3	Field Preservation: HCl	Field Preservation: BrCl	Field Preservation: Other (specify)	Analyses required: METHYL MERCURY USEPA 1630	Analyses required: MS/MSD	Comments
1	BBL-H6SED-60(0-0.5')	5/13/03	0920	BBL	SED	1		X					X		
2	BBL-H6SED-17(0-0.5')		0725			1		X					X		
3	BBL-H6SED-17(0.5-1.2')		0725			1		X					X		
4	BBL-H6SED-19(0-0.5')		0740			1		X					X		
5	BBL-H6SED-19(0.5-1.5')		0740			1		X					X		
6	BBL-H6SED-21(0-0.5')		0750			1		X					X		
7	BBL-H6SED-21(0.5-1.3')		0750			1		X					X		
8	BBL-H6SED-47(0-0.5')		0810			1		X					X		
9	BBL-H6SED-47(0.5-1.45')		0810			1		X					X		
10	BBL-H6SED-48(0-0.5')	V	0820	V	V	1		X					X		

Shipping carrier: FEDEX #: 8321 2545 3217 # of coolers: 1

Relinquished by:	Date: 5/13/03	Time: 1500	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at BRL:	Date:	Time:

White: LAB COPY **Yellow: CUSTOMER COPY**

Brooks Rand LLC Chain Of Custody Record

Client: BRL	Email address:	Ship to: **Brooks Rand LLC**
Contact: DAVID LUDWIG	PO #: 102.94.001	3958 6th Avenue NW
Address: BLASLAND, BOUCK & LEE	Sampler's signatures:	Seattle, WA 98107
		Phone: 206-632-6206
	Fax COC for receipt confirmation? (Y/N)	Fax: 206-632-6017
Phone #: (410) 295-1205	Client project ID: 102.94.001	Email: brl@brooksrand.com
Fax #:	BRL project ID: BBL006	www.brooksrand.com

For BRL use only	Cooler temp (°C):	Custody seals present? (Y / N)	Custody seals intact? (Y / N)	Date:	Initials:

	Sample ID	Collection: Date	Collection: Time	Misc: Sampler (initials)	Misc: Matrix type	Misc: # of containers	Misc: Sample field filtered, Y/N	Field Preservation: Unpreserved or ice only	Field Preservation: HNO_3	Field Preservation: HCl	Field Preservation: BrCl	Field Preservation: Other (specify)	Analyses required: METHYLMERCURY USEPA 1630	Analyses required: MS/MSD	Analyses required	Analyses required	Analyses required	Analyses required	Analyses required	Comments
1	BBL-HGSED-68(0-0.5')	5/13/08	1000	PDK	SED	1		X					X							Blind Duplicate of BBL-HGSED-48(0-0.5')
2	BBL-HGSED-49(0-0.5')		0830			1		X					X							
3	BBL-HGSED-49(0.5-1.5')		0830			1		X					X							
4	BBL-HGSED-50(0-0.5')		0835			2		X					X	X						
5	BBL-HGSED-51(0-0.5')		0845			1		X					X							
6	BBL-HGSED-51(0.5-1.2')		0845			1		X					X							
7	BBL-HGSED-52(0-0.5')		0835		↓	2		X					X	X						
8	BBL-HGSED-77	↓	1330	↓	H2O	1		X					X							RINSE BLANK NEEDS TO BE PRESERVED BY LABORATORY
9																				
10																				

Shipping carrier: FEDEX #: 8371 2545 3217 — # of coolers:

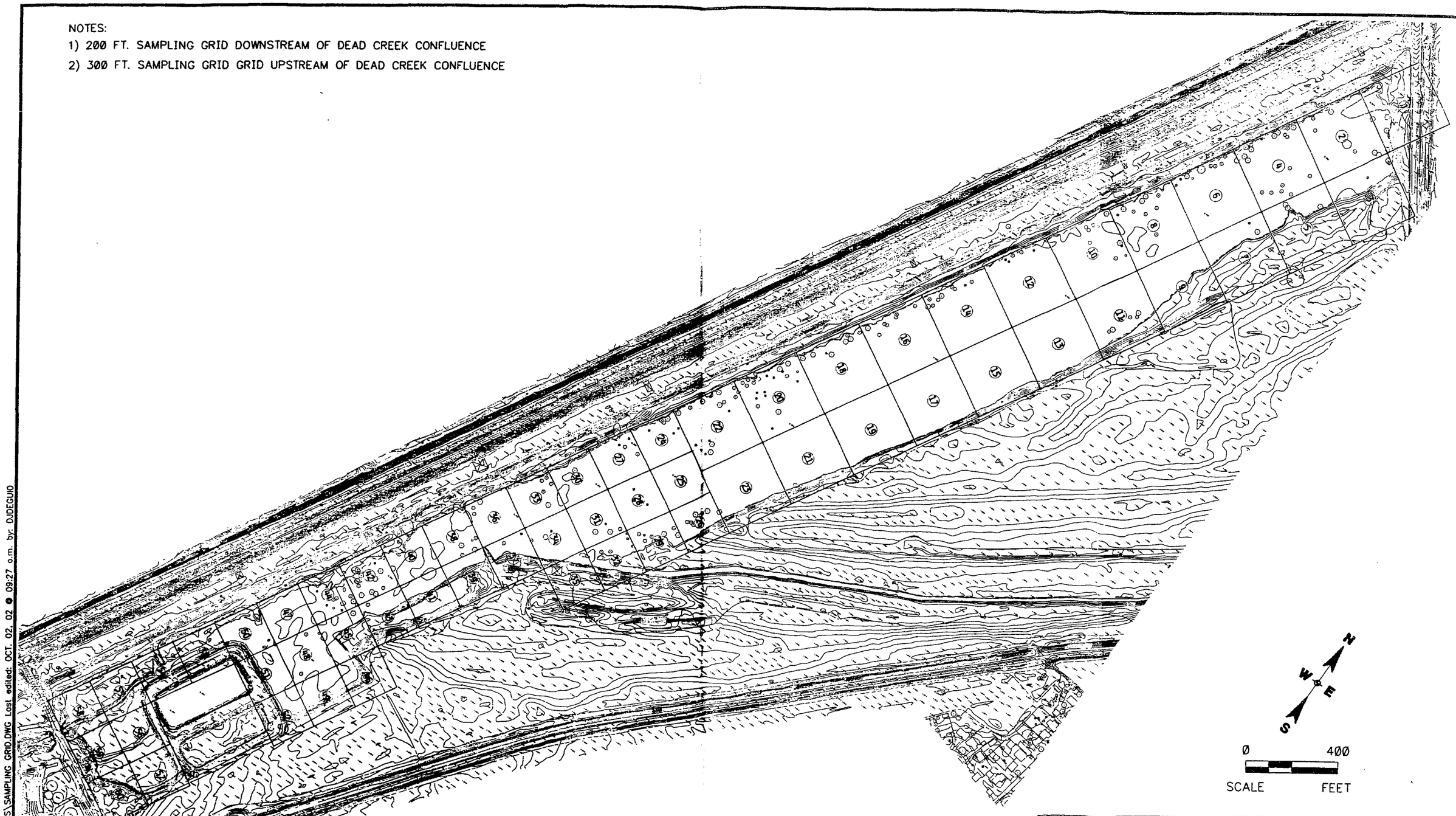
Relinquished by:	Date: 5/13/08	Time: 1500	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received at BRL:	Date:	Time:

White: LAB COPY **Yellow: CUSTOMER COPY**

NOTES:

1) 200 FT. SAMPLING GRID DOWNSTREAM OF DEAD CREEK CONFLUENCE

2) 300 FT. SAMPLING GRID GRID UPSTREAM OF DEAD CREEK CONFLUENCE



SAUGET AREA 1 SAUGET ILLINOIS	PROJECT NO. 23-20020041.00
URS	
DRN. BY: djd 5/6/02 DSGN. BY: rbv CHKD. BY:	Borrow Pit Lake Investigation Plan Sediment Sampling Locations
	FIG. NO. 4-1

File: E:\2320020041.00\URS\SAMPLING GRID.DWG Last edited: OCT. 02, 02 @ 09:27 a.m. by: DJDEGUIO